

Specific binding of dehydroepiandrosterone sulfate to rat liver cytosol: a possible association with peroxisomal enzyme induction
J. Yamada, H. Sugiyama, M. Sakuma and T. Suga (Japan) 139

- Activation of phospholipase D in human platelets by collagen and thrombin and its relationship to platelet aggregation
T.M. Chiang (USA) 147

Short Sequence-Paper

- Characterization of a rat cDNA clone encoding calcium/calmodulin-dependent protein kinase I
F.S. Cho, K.S. Phillips, B. Bogucki and T.E. Weaver (USA) 156

Regular Section

Regular Papers

- Deoxycytidine kinase is phosphorylated in vitro by protein kinase C α
L.-M. Wang and G.L. Kucera (USA) 161
- Leukotriene C4 upregulates collagenase expression and synthesis in human lung fibroblasts
L. Medina, J. Pérez-Ramos, R. Ramírez, M. Selman and A. Pardo (México) 168
- Phencyclidine inhibits epinephrine-stimulated platelet aggregation independently of high affinity N-methyl-D-aspartate (NMDA)-type glutamate receptors
R.E. Raulli, B. Jackson, N. Tandon, M. Mattson, K. Rice and G.A. Jamieson (USA) 175
- Hematopoietic colony stimulatory factor formation by murine mesangial cells: gene expression and biological activity
M.R. Jodus, R. Pai, E. Horansky, H.T. Wepsic, M.A. Kirschenbaum and V.S. Kamanna (USA) 181
- Amino acid deprivation-induced stress response in the bovine renal epithelial cell line NBL-1: induction of HSP 70 by phenylalanine
S. Plakidou-Dymock and J.D. McGivan (UK) 189
- Stimulation of protein synthesis and phospholipase D activity by vasopressin and phorbol ester in L6 myoblasts
M.G. Thompson, S.C. Mackie, K.S. Morrison, A. Thom and R.M. Palmer (UK) 198
- Glycogen synthesis from glucose by direct and indirect pathways in hepatocyte cultures from different nutritional states
D. Tosh, G. Beresford and L. Agius (UK) 205
- Control of glucose metabolism in newborn pig enterocytes: evidence for the role of hexokinase
L. Posho, B. Darcy-Vrillon, M.-T. Morel, C. Cherbuy, F. Blachier and P.-H. Duée (France) 213
- The role of protein kinase C in arachidonic acid release and prostaglandin E production from CHO cells transfected with EGF receptors
S. Clark, R. Keogh and M. Dunlop (Australia) 221

- ²³Na nuclear magnetic resonance study of intracellular sodium in vascular endothelial cells
M.L.H. Gruwel, C. Alves and J. Schrader (Germany) 228
- Analysis of successive endocytic compartments isolated from *Dictyostelium discoideum* by magnetic fractionation
K.V. Nolte, J.M. Rodriguez-Paris and T.L. Steck (USA) 237
- Hydrolysis of cell surface inositol phospholipid leads to the delayed stimulation of phosphatidylinositol synthesis in bovine aortic endothelial cells
D.J. Sillence and M.G. Low (USA) 247
- Role of capsaicin, curcumin and dietary *n* – 3 fatty acids in lowering the generation of reactive oxygen species in rat peritoneal macrophages
B. Joe and B.R. Lokesh (India) 255
- Glutathione S-conjugate transport by cultured human cells
C. Olive and P. Board (Australia) 264
- Macrophages loaded with doxorubicin by ATP-mediated permeabilization: potential carriers for antitumor therapy
M. Munerati, R. Cortesi, D. Ferrari, F. Di Virgilio and C. Nastruzzi (Italy) 269

Subsection

Minireview

- Signal recognition and transduction in olfactory neurons
H. Breer, K. Raming and J. Krieger (Germany) 277

Regular Papers

- Endothelin receptor agonists and antagonists exhibit different dissociation characteristics
J.R. Wu-Wong, W.J. Chiou, S.R. Magnuson and T.J. Opgenorth (USA) 288
- PAF stimulates cAMP formation in P388D₁ macrophage-like cells via the formation and secretion of prostaglandin E₂ in an autocrine fashion
R. Asmis and E.A. Dennis (USA) 295
- Possible involvement of phosphatidylinositol-specific phospholipase C related to pertussis toxin-sensitive GTP-binding proteins during adipocyte differentiation of 3T3-L1 fibroblasts: negative regulation of protein kinase C
T. Uehara, S.-i. Hoshino, M. Ui, Y. Tokumitsu and Y. Nomura (Japan) 302
- Recovery from acute glucagon challenge in isolated rat hepatocytes: is protein dephosphorylation synchronous or asynchronous?
S.R. Aggarwal and T.N. Palmer (Australia) 311

- Platelet-activating factor induced calcium mobilization and phosphoinositide metabolism in cultured bovine cerebral microvascular endothelial cells
A.-Y. Lin and Y.-C. Rui (P.R. China) 323

Regular Section

- Modulation of ornithine aminotransferase activity by oxygen in rat hepatocyte cultures
S. Colombatto, G. Giribaldi, C. Vargiu and M.A. Grillo (Italy) 329
- L-Carnitine and some of its analogs delay the onset of apoptotic cell death initiated in murine C2.8 hepatocytic cells after hepatocyte growth factor deprivation
R.P. Revoltella, B. Dal Canto, L. Caracciolo and C.M. D'Urso (Italy) 333
- Lack of inhibition by dideoxy-forskolin and verapamil of DIDS-sensitive volume-activated Cl^- secretion in human squamous lung carcinoma epithelial cells
F.M. Munkonge, L.R. Osborne, D.M. Geddes and E.W.F.W. Alton (UK) 342
- The metabolism of vitamin A to 3,4-didehydroretinol can be demonstrated in human keratinocytes, melanoma cells and HeLa cells, and is correlated to cellular retinoid-binding protein expression
E. Andersson, C. Björklind, H. Törmä and A. Vahlquist (Sweden) 349
- Conductive cation transport in apical membrane vesicles prepared from fetal lung
G.K. Fyfe, P.J. Kemp, E.J. Cragoe Jr. and R.E. Olver (UK) 355
- Enhanced expression of multiple forms of VEGF is associated with spontaneous immortalization of murine fibroblasts
T. Sugihara, S.C. Kaul, Y. Mitsui and R. Wadhwa (Japan) 365
- Expression of glycolytic isozymes in rat thymocytes during cell cycle progression
R. Netzker, U. Hermfisse, K.-H. Wein and K. Brand (Germany) 371
- Effects of extracellular bicarbonate ions and pH on volume-regulatory taurine efflux from rat cerebral cortical slices in vitro: evidence for separate neutral and anionic transport mechanisms
R.O. Law (UK) 377
- On the mechanism of inactivation of muscle glycogen phosphorylase by insulin
C. Villar-Palasi (USA) 384
- Exposure of human lymphocytes to bis-(2-chloroethyl)sulfide solubilizes truncated and intact core histones
C.B. Millard, H.L. Meier and C.A. Broomfield (USA) 389

- Bone marrow activation by immobilized antibodies against tumor cells and immunocytes as a potential cancer immunotherapy
B.Z. Packard and G. Parry (USA) 395
- Novobiocin activates the mating response in yeast through the α -pheromone receptor, Ste2p
M.J. Pocklington and E. Orr (UK) 401
- Effect of sucrose monostearate, an emulsifier, on polyamine metabolism and phosphatidylinositol turnover in Ehrlich ascites tumor cells
I. Matsui-Yuasa, N. Koike, K. Ohtani and S. Otani (Japan) 413
- Inhibition of protein kinase C activity and vascular smooth muscle cell growth by d- α -tocopherol
D.O. Boscoboinik, E. Chatelain, G.-M. Bartoli, B. Stäuble and A. Azzi (Switzerland) 418
- Factors influencing macrophage activation by muramyl peptides: inhibition of NO synthase activity by high levels of NO
C. Morin, H. Fessi, J.P. Devissaguet, F. Puisieux and G. Barratt (France) 427
- Plasma antiproteinase screen and neutrophil-mediated platelet activation. A major role played by α_1 antitrypsin
M. Chignard, E. Hazouard, P. Renesto, A. Laine, B. Guidet and G. Offenstadt (France) 431
- Further evidence of different lactoferrin and transferrin binding sites on human HT29-D4 cells. Effects of lysozyme, fucose and cathepsin G. Comparison with transferrin
D. Roiron-Lagroux and C. Figarella (France) 441
- Endocytosis does not necessarily augment the cytotoxicity of adriamycin encapsulated in immunoliposomes
S. Suzuki, S. Watanabe, S. Uno, M. Tanaka, T. Masuko and Y. Hashimoto (Japan) 445

Rapid Reports

- Autoregulation of endothelin-1 secretion by cultured human keratinocytes via the endothelin B receptor
J.J. Yohn, C. Smith, T. Stevens, J.G. Morelli, L.R. Shurnas, S.J. Walchak, T.A. Hoffman, K.K. Kelley, A. Escobedo-Morse, M. Yanagisawa, M.A. Kane and M.R. Zamora (USA) 454
- Inverse relationship of cotranslational translocation with the hydrophobic moment of the bovine preproparathyroid hormone signal sequence
K. Ahn, D. Chen and B. Kemper (USA) 459

Short Sequence-Paper

- Nucleotide and deduced amino acid sequence of a putative higher molecular weight precursor for catalase in sunflower cotyledons
S. Kleff, R.N. Trelease and R. Eising (Germany, USA) 463

Subsection

Review

- A kinase anchor proteins and the intracellular targeting of signals carried by cyclic AMP
C.S. Rubin (USA) 467
- Calpain-induced down-regulation of protein kinase C inhibits dense-granule secretion in human platelets. Inhibition of platelet aggregation or calpain activity preserves protein kinase C and restores full secretion
Y. Patel, V.V. Kakkar and K.S. Authi (UK) 480
- The mitogenic action of recombinant basic FGF in Swiss 3T3 cells is independent of early diacylglycerol production and downregulatable protein kinase C activity
K. Virdee, B.L. Brown and P.R.M. Dobson (UK) 489
- Inhibition of the T-cell receptor-mediated signal transduction by microinjection of anti-Lck monoclonal antibody into T-cells
K. Nakamura, Y. Koga, H. Yoshida, K. Tanaka, M. Sasaki, G. Kimura and K. Nomoto (Japan) 495
- Characterization of integrin expression and regulation on SW-480 human colon adenocarcinoma cells and the effect of rhodostomin on basal and upregulated tumor cell adhesion
H.-S. Chiang, H.-C. Peng and T.-F. Huang (Taiwan) 506
- Ins 1,4,5- P_3 and Ca^{2+} signaling in quiescent neonatal cardiac myocytes
C.A. Hansen, S.K. Joseph and J.D. Robishaw (USA) 517
- Rat preadipocyte adenylyl cyclase: influence of fat localization and androgenic status
D. Lacasa, D. Denis, B. Agli, P. De Mazancourt and Y. Giudicelli (France) 527
- Characterization of a protein which binds phosphatidylinositol 3,4,5-trisphosphate and 4,5-bisphosphate
W. Ogawa and R.A. Roth (USA) 533
- Levels and localization of group II phospholipase A_2 and annexin I in interleukin- and dexamethasone-treated rat mesangial cells: evidence against annexin mediation of the dexamethasone-induced inhibition of group II phospholipases A_2
M.J.B.M. Vervoordeldonk, C.G. Schalkwijk, B.S. Vishwanath, A.J. Aarsman and H. Van den Bosch (Netherlands, Switzerland) 541
- Protein kinase C expression and translocation in dispersed chief cells from guinea-pig stomach
R.D. Raffaniello and J.-P. Raufman (USA) 551
- Role of sialic acid residues in the in vitro superactivity of human choriogonadotropin (hCG) in rat Leydig cells
F. Apparailly and Y. Combarrous (France) 559
- Cyclic AMP- plus ATP-dependent modulation of the NADH oxidase activity of porcine liver plasma membranes
D.J. Morré, P. Navas, J.-C. Rodriguez-Aguilera, D.M. Morré, J.M. Villalba, R. De Cabo and J. Lawrence (USA, Spain) 566
- U-73122, a phospholipase C antagonist, inhibits effects of endothelin-1 and parathyroid hormone on signal transduction in UMR-106 osteoblastic cells
A. Tatrai, S.K. Lee and P.H. Stern (USA) 575
- The effect of calcium on mitochondrial contact sites: a study on isolated rat hearts
A. Bakker, I. Bernaert, M. De Bie, T. Ravingerova, A. Ziegelhöffer, H. Van Belle and W. Jacob (Belgium, Slovak Republic) 583
- Progesterone-induced phospholipid N-methylation and sphingomyelin synthesis in the amphibian oocyte plasma membrane: a second source of the 1,2-diacylglycerol second messenger associated with the G_2/M transition
G.A. Morrill, G.Y. Ma and A.B. Kostellow (USA) 589

Rapid Report

- Inhibitory effect of curcumin on epidermal growth factor receptor kinase activity in A431 cells
L. Korutla and R. Kumar (USA) 597

Short Sequence-Paper

- Cloning and expression of a cDNA for rat prostacyclin receptor
Y. Sasaki, T. Usui, I. Tanaka, O. Nakagawa, T. Sando, T. Takahashi, T. Namba, S. Narumiya and K. Nakao (Japan) 601

Cumulative Contents 607

Author Index 611

